



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/562,003

12/23/2005

Toshiharu Yokota

050786

1107

23850

7590

03/20/2007

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP  
1725 K STREET, NW  
SUITE 1000  
WASHINGTON, DC 20006

EXAMINER

ZETTL, MARY E

ART UNIT

PAPER NUMBER

2875

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/20/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/562,003

Applicant(s)

YOKOTA, TOSHIHARU

Examiner

Mary Zetti

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

Claims 14-16 and 26 are objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3-6 respectively.

Claims 24, and 25 are objected to under 37 CFR 1.75 as being a substantial duplicate of claim 12.

Also, claims 11, 19, and 21 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 9, 17, and 22, respectively.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-5, 7-9, 11, and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubu et al. (JP 2002-164138) in view of Murphy (US 819,702 A) and Gustavsson (DE 3217254 A).

Regarding claims 1 and 7, Kokubu et al. teach a refrigerator provided with a chamber lamp socket attached to the inside of a chamber, and a chamber lamp attached to and supported by the chamber lamp socket. Kokubu et al. further teaches the collar portion (1) being formed of a flexible material (paragraph 10, Detailed Description). Kokubu et al. further teach (figure 1) the collar portion coming into contact with the glass tube of the lamp. Kokubu et al. do not teach the presence of saw tooth shapes coming into direct contact with the glass tube of the chamber lamp. Murphy teaches the need for a mechanism for preventing the loosening of a bulb from a socket due to vibration (col. 1, lines 26-28). In order to prevent the loosening of the bulb, Murphy teaches a saw-toothed shape constituted by alternately forming gentle slopes and steep slopes to set a resistance in detaching the lamp to be larger than a resistance in attaching the lamp. At the time the invention was made, it would have well known to one of ordinary skill in the art that the lamps used in refrigerators are subject to mechanical vibrations. Therefore it would have been obvious to one of ordinary skill in the art to have modified the invention of Kokubu et al. such that a saw-toothed shape such as that taught by Murphy was used to prevent the lamp from coming loose due to vibrations. Murphy does not teach the saw-toothed shape being formed on the collar portion of the lamp socket and coming into direct contact with the glass tube of the lamp. Gustavsson (DE 3217254 A) teaches a lamp socket included a saw-toothed arrangement (13 and 14) on a flexible collar (1) and the saw-toothed arrangement coming into contact with the glass tube (12) of the lamp (Figure 2 and Abstract). At the time the invention was made, it would have been obvious to one of ordinary skill in the

Art Unit: 2875

art to have modified the invention of Kokubu et al. such that the a means for preventing the loosening of the lamp such as a saw tooth shape as that taught by Murphy was used and that this saw tooth shape gripped the glass tube of the lamp such as the saw tooth shape as taught by Gustavsson. One would have been motivated to make such a modification for the dual purposes of protecting the electrical components from moisture and preventing the bulb from becoming loose due to vibrations.

Regarding claims 3, 9, 11, 14 Kokubu et al. further teach an intermediate portion of the collar portion being provided with an annular protruding portion (1e) which is closely attached to the outer periphery of the glass tube of the chamber lamp.

Regarding claims 4, 15, 17, 19, Kokubu et al. further teach the use of a combustible refrigerant (Abstract).

Regarding claims 5, 16, 18, 20, 21, 22, and 23, it would have been obvious to one of ordinary skill in the art to have driven the chamber lamp with a commercial power supply voltage in order to avoid maintenance issues with other power supplies such as batteries.

2. Claims 6, 10, 12, 13, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubu et al. (JP 2002-164138), Murphy (US 819,702 A), and Gustavsson (DE 3217254 A) as applied to claims 3, 9, 1, 7, and 14 above and further in view of Hawes et al. (US 3,915,328 A).

Regarding claims 6, 10, 12, 13, and 24-26, Kokubu et al. teach the collar being made of rubber or flexible plastics and being elastic. Kokubu et al. do not disclose

Art Unit: 2875

expressly the flexible plastic being a polyvinyl chloride resin material. Hawes et al. teaches a frame means for connecting structural members in a refrigerator or freezer (Abstract) including a collar made of polyvinyl chloride (col. 5, line 27). At the time the invention was made, it would have been obvious for Kokubu et al. to have utilized polyvinyl chloride for the flexible plastic as it was well known that polyvinyl chloride is a material widely used because it is inexpensive and easy to assemble.

3. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubu et al. (JP 2002-164138) in view of Hawes et al. (US 3,915,328 A).

Regarding claim 27, Kokubu et al. teach a refrigerator provided with a chamber lamp socket attached to the inside of a chamber, and a chamber lamp attached to and supported by the chamber lamp socket. Kokubu et al. further teaches the collar portion (1) being formed of a flexible material (paragraph 10, Detailed Description). Kokubu et al. further teach (figure 1) the collar portion coming into contact with the glass tube of the lamp. Kokubu et al. further teaches the lamp socket provided with unevenness on an inner surface thereof (1b and 1e). Kokubu et al. do not disclose expressly the flexible plastic being a polyvinyl chloride resin material. Hawes et al. teaches a frame means for connecting structural members in a refrigerator or freezer (Abstract) including a collar made of polyvinyl chloride (col. 5, line 27). At the time the invention was made, it would have been obvious for Kokubu et al. to have utilized polyvinyl chloride for the flexible plastic as it was well known that polyvinyl chloride is a material widely used because it is inexpensive and forms a good seal.

***Conclusion***


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Zettl whose telephone number is (571) 272-6007.

The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MZ

  
RENEE LUEBKE  
PRIMARY EXAMINER